UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/495,141	01/31/2000	Mark J. Hampden-Smith	SMP-023-2-1	4450

7590 01/30/2002

David F. Dockery
MARSH FISCHMANN & BREYFOGLE LLP
3151 S. Vaughn Way, Suite 411
Aurora, CO 80014

EXAMINER
TALBOT, BRIAN K

ART UNIT	PAPER NUMBER
1762	8

DATE MAILED: 01/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/495,141	Applicant(s) HAMPDEN-SMITH ET AL.	
	Examiner Brian K Talbot	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 March 2001* .

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-23* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-11, drawn to a composition, classified in class 106, subclass 15.05+.

II. Claims 12-20, drawn to a method, classified in class 427, subclass 258+.

III. Claims 21-23, drawn to ink jet device, classified in class 101, subclass 335+.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the method can be practiced by another materially different apparatus or by hand other than a direct write tool.

3. Inventions II and I are related as process and composition for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different composition, or (2) the composition as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process can be practiced by another materially different composition.

4. Inventions I and III are related as composition and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the composition as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different composition. (MPEP § 806.05(e)). In

this case the apparatus as claimed can be practice with another and materially different composition.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. A telephone call was made to David Dockery on 1/18/02 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (703) 305-3775. The examiner can normally be reached on Tuesday-Friday 6AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-6078 for regular communications and (703) 872-9765 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3775.

B K Talbot

Brian K Talbot
Primary Examiner
Art Unit 1762

BKT
January 30, 2002

1. As noted by the applicant, the restriction requirement failed to incorporate claim 24, which should have been included in Group II. Hence, the restriction will be treated as such.

2. Applicant's election with traverse of Group II, claims 12-20 and 24 in Paper No. 10 is acknowledged. The traversal is on the ground(s) that the search for one group would encompass the search for the other group and there would be no serious burden. This is not found persuasive because the claims are directed toward distinct inventions which have acquired a separate status in the art as well as the fact that the issues that arise in examining apparatus and method claims are different and this would constitute a burden on the Patent Office.

The requirement is still deemed proper and is therefore made **FINAL**.

3. Claims 1-24 remain in the application with claims. Claims 1-11 and 21-23 have been withdrawn from consideration as they are directed toward a non-elected invention. Hence, claims 12-20 and 24 are the only remaining active claims.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12-20 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 12-19 and 24, the phrase "direct-write tool" is vague and indefinite. The phrase "direct-write tool" encompasses a wide variety of meanings and it is unclear what is being claimed. Clarification is requested.

With respect to claim 24, the term "and" appears to be missing after the term "20um".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-17,19 and 24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Matsuda et al. (5,644,193).

Matsuda et al. (5,644,193) teaches a phosphor coating for cathode ray tubes, fluorescent lamps and radiation screens. The phosphor coating suspension includes spherical particles having an average particle size of from 0.5-20 microns. The phosphor particles can be oxides or sulfide of phosphor. The coating can be applied by syringe injection.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 12-20 and 24 are rejected under 35 U.S.C. 102(e) as being clearly anticipated Hampden-Smith et al. (6,193,908) or Hampden-Smith et al. (6,197,218).

Hampden-Smith et al. (6,193,908) or Hampden-Smith et al. (6,197,218) teach a phosphor coating for display devices and lighting elements. The phosphor coating suspension includes spherical hollow particles having an average particle size of from 0.5-20 microns. The phosphor particles can be oxides or sulfide of phosphor. The coating can be applied by syringe injection or ink-jet printing.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al. (5,644,193) in combination with Hampden-Smith et al. (6,193,908) or Oshima et al. (5,932,139).

Matsuda et al. (5,644,193) fails to teach that the phosphor particles are hollow or that the coating can be applied by ink-jet.

Hampden-Smith et al. (6,193,908) or Oshima et al. (5,932,139) both teach that the phosphor particles are hollow or that the coating can be applied by ink-jet.

Therefore, it would have been within the skill of one practicing in the art to have modified Matsuda et al. (5,644,193) process by forming the phosphor coating with hollow particles and applying the coating by ink-jet as evidenced by Hampden-Smith et al. (6,193,908) or Oshima et al. (5,932,139) because of the expectation of achieving similar results.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (703) 305-3775. The examiner can normally be reached on Tuesday-Friday 6AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3775.

Brian K Talbot
Primary Examiner
Art Unit 1762

BKT
April 21, 2003